

# TRK-8001W

## Cassette tape recorder

### FM/SW<sub>1</sub>/SW<sub>2</sub>/MW Radio

# Operating guide

#### KEY TO ILLUSTRATIONS

- ① REC/BATTERY INDICATOR
- ② VOLUME CONTROL
- ③ BALANCE CONTROL
- ④ TONE CONTROL
- ⑤ FM STEREO INDICATOR
- ⑥ PAUSE BUTTON
- ⑦ FAST FORWARD/CUE BUTTON
- ⑧ REWIND/REVIEW BUTTON
- ⑨ PLAYBACK BUTTON
- ⑩ RECORD BUTTON
- ⑪ STOP/EJECT BUTTON
- ⑫ TELESCOPIC ANTENNA (AERIAL)
- ⑬ MODE SWITCH
- ⑭ FUNCTION SELECTOR
- ⑮ BAND SELECTOR
- ⑯ TUNING CONTROL
- ⑰ BUILT-IN MICROPHONE (RIGHT)
- ⑱ TAPE COUNTER
- ⑲ HEADPHONE SOCKET
- ⑳ BUILT-IN MICROPHONE (LEFT)
- ㉑ MICROPHONE SOCKET (RIGHT)
- ㉒ MICROPHONE SOCKET (LEFT)
- ㉓ LINE-IN SOCKETS (RIGHT AND LEFT)
- ㉔ LINE OUT SOCKETS (RIGHT AND LEFT)
- ㉕ MIC/SPEAKER CHANGE OVER SWITCH
- ㉖ EXTERNAL SPEAKER SOCKETS (RIGHT AND LEFT)
- ㉗ VOLTAGE SELECTOR
- ㉘ DC 9V SOCKET
- ㉙ AC SOCKET
- ㉚ BATTERY REPLACEMENT
- ㉛ CASSETTE PROTECTION
- ㉜ CLEANING

## BEFORE USING

To obtain the best performance and ensure years of trouble-free use, please read this operating guide carefully.

## PRECAUTIONS

- \* When the unit is not in use or used on AC power for a long period of time, the batteries should be taken out of the battery compartment.
- \* Do not leave the exhausted batteries in the battery compartment, or they may corrode and cause damage.
- \* Do not leave the unit in direct sunlight or extremely hot or humid places.
- \* Never use any strong detergents or solvent for cleaning the cabinet of this unit, because this could damage the surface finish.

## FEATURES

- \* **High sensitivity 4-band radio**  
The wide tuning scale permits easy station selection. The high sensitivity tuner and PLL Multiplex circuit make receiving stereo broadcasts with good separation easy. In addition, large speakers with a high output power of 4.0W let you enjoy dynamic sound.
- \* **3-way power supply**  
Car battery, batteries or AC power:
- \* **Variable monitor**  
Radio programmes may be listened to at any desired volume and tone control setting without affecting the recording because of the "VARIABLE MONITOR" device.
- \* **Auto stop mechanism**  
This feature will automatically disengage the tape transport in transport modes (play, record) when the end of tape is reached. Buttons will automatically return to their inoperative positions and the power will be turned off.
- \* **Pause**  
The pause facility lets you stop the tape temporarily in the play and record modes to avoid recording commercials or unwanted passages.
- \* **External speaker socket**

## POWER REQUIREMENT

**Operation using Batteries:** Remove the battery compartment lid and install 6 batteries as shown in the diagram in the compartment with the ribbon underneath. The batteries can easily be removed by pulling the ribbon. (See diagram ③⑩).

Note: When the unit is not in use or used on AC power (mains) for a long period of time, the batteries should be taken out of the battery compartment.

**Battery check:** Depress the Record and Playback buttons ⑩ and ⑨. If the Indicator ① lights, the batteries are strong enough for use, if the Indicator does not light or is dim, the batteries are too weak and the recorder will not operate adequately. Change the batteries.

**Operation using car battery:** To operate using a car battery, insert one end of the optional car adaptor into the DC 9V socket ②⑧ and the other end into the cigarette lighter of your car. This will automatically disconnect the batteries.

**Operation on AC power (mains):** To set power (mains) voltage:

1. This unit can be used with power (mains) voltage of 100 to 110V, 115 to 127V, 200 to 220V or 230 to 250V.

Note: The Voltage selector has been set to 230 — 250V when the set is shipped from the factory.

Before operating, be sure to check that it is set to your local power (mains) voltage.

2. Turn the Voltage selector ②⑦ to set to the power (mains) voltage in your area with a screwdriver until a click is heard.

Notes:

1. Before turning the selector, disconnect the AC power (mains) lead from the AC outlet and set this unit to the stop mode.
2. Be sure not to turn the selector with a thin screwdriver, etc. with force because the selector may break, the fuse may break and the recorder may not operate.
3. When inserting the power (mains) plug into an AC outlet supplying 210/240V, insert the plug with the Siemens adaptor provided connected to it.

Insert one end of the AC power (mains) lead into the AC socket ②⑨ and the other end into a convenient AC outlet. This will automatically disconnect the batteries. To return to battery operation, disconnect the AC power (mains) lead from the AC socket ②⑨.

Note: Disconnect the AC power (mains) lead plug from the AC outlet when the unit is not used on AC power (mains) for a long period of time or you are away from home.

## RADIO OPERATION

1. Set the Function selector ⑭ to the "RADIO" position.
2. Set the Band selector ⑮ to the desired position.
3. Turn the Tuning control ⑯ to tune to the desired station.
4. Adjust the antenna (aerial).

**FM reception:** Extend the Telescopic antenna (aerial) ⑫ to its full length. Change antenna (aerial) direction to obtain optimum reception.

**FM stereo indicator:** If the Mode switch ⑬ is set to "STEREO", FM stereo indicator ⑤ lights when the station is broadcasting a stereo programme.

Indicator ⑤ will not light even if the station is broadcasting a stereo programme when Mode switch ⑬ is set to "MONO".

If the Stereo indicator light should go off later the station is no longer transmitting a stereo programme, therefore change the Mode switch ⑬ to "MONO".

When an FM stereo signal is too weak or noisy for enjoyable stereo listening, set the Mode switch ⑬ to "MONO".

**SW2 reception:** Extend the Telescopic antenna (aerial) ⑫ to its full length.

**MW/SW1 reception:** The built-in ferrite-core antenna (aerial) guarantees good reception under normal conditions. Rotate the unit and find the position in which the best reception is obtained.

5. Adjust the Volume, Balance and Tone controls ②, ③ and ④.
6. To turn off the radio, set the Function selector ⑭ to the "TAPE" position.

## TAPE RECORDER OPERATION

### INSERTION OF CASSETTE:

Depress the Eject button ⑪ to open the cassette lid and insert the cassette with its full reel on the right and the opening up.

When the cassette is fully recorded or played back, it may be turned over to side 2 (or B) for an equal time of recording or playback.

### TAPE PLAYBACK:

To playback a cassette tape, set the Function selector ⑭ to the "TAPE" position and depress the Playback button ⑨.

### FAST FORWARD AND REWIND:

**Fast forward/cue:** Depress the Fast forward button ⑦ with the Playback button ⑨ kept depressed, so that the tape is fed forward quickly. Release the Fast forward button ⑦ to restart playback.

For ordinary fast forwarding, depress the Fast forward button ⑦ after depressing the Stop button ⑪.

**Rewind/review:** When you want to listen to a certain part again during playback, depress the Rewind button ⑧ with the Playback button ⑨ kept depressed, and the tape is rewound quickly. For ordinary rewind, depress the Rewind button ⑧ after depressing the Stop button ⑪.

**Quick review:** During recording, depress the Rewind button ⑧; only the Record button ⑩ is released and review operation starts with the Playback button ⑨ locked.

When the Rewind button ⑧ is released, playback starts immediately.

## RECORDING

**"LEVELMATIC" AND "VARIABLE MONITOR":** No record level adjustment is necessary during recording. The Levelmatic circuitry adjusts the recording level and reduces distortion of loud sounds. The radio programme may be heard at any desired volume without affecting the recording because of the "Variable monitor" device.

**RECORDING FROM RADIO PROGRAMMES:** Set the Function selector ⑭ to the "RADIO" position and depress the record and Playback button ⑩ and ⑨ after setting the MIC/SP switch ⑫ to "EXT. MIC/LINE-IN/ON".

**RECORDING FROM BUILT-IN (OR EXTERNAL) MICROPHONES:** When recording from the built-in microphones, set the Function selector ⑭ to the "TAPE" position and depress the Record and Playback buttons ⑩ and ⑨ after setting the MIC/SP switch ⑫ to "INN MIC/OFF". (The sound cannot be monitored through the speakers.) When making stereo recording using external microphones, connect the two microphones to the Microphone sockets ⑪ and ⑫ after setting the MIC/SP switch ⑫ to "EXT. MIC/LINE-IN/ON". (The sound can be monitored through the speakers.)

**RECORDING FROM EXTERNAL PROGRAMME SOURCE:** All programme sources may be directly recorded on cassette tape. External programme sources have to be connected to the LINE-IN socket ⑬ and Function selector ⑭ to the "TAPE" position. Set the MIC/SP switch ⑫ to "EXT. MIC/LINE-IN/ON".

**RECORDING FROM A STEREO SYSTEM:** Recording from a stereo system is possible by connecting the LINE-IN sockets ⑬ and the amplifier output terminals using a US pin lead. Set the MIC/SP switch ⑫ to "EXT. MIC/LINE-IN/ON". (The sound can be monitored through the speakers.)

**TO STOP THE TAPE:** Because of the Auto Stop Mechanism, tape stops automatically at the end of tape during recording and playback. To stop the tape at any other time, depress the Stop button ⑪. By use of the Pause button ⑥, the operation of the recorder can be stopped temporarily during recording or playback without changing the mode. Depress the Pause button ⑥ again to restart recording or playing back.

**ERASING:** When a recording is being made, any sound already on the tracks is automatically erased before the new recording is made. Erase is accomplished only when the recorder is in the recording mode. If you wish to erase a tape without making a new recording, set the MIC/SP switch ⑫ to "EXT. MIC/LINE-IN/ON" then depress the Record ⑩ and Playback button ⑨ after disconnecting the external microphone and/or external programme source.

**Note:** The record button ⑩ cannot be depressed if there is no cassette or if a cassette without tabs is inserted into the unit.

Always depress the Record and Playback button ⑩ and ⑨ simultaneously or in the sequence the Record button ⑩ then the Playback button ⑨; never depress these buttons in the reverse order because this will damage the unit.

**TO FALL ASLEEP WITH MUSIC (USING AS SLEEP TIMER):** You can fall asleep listening to a radio programme using this tape recorder. Insert a cassette (C-30: 15 minutes C-60: 30 minutes or C-90: 45 minutes), set the Function selector ⑭ to the "Sleep" position and depress the Playback button ⑨. The sound of the radio programme will be heard.

## PRECAUTIONS WITH CASSETTE TAPE

### TYPE OF CASSETTE TAPE

Use a normal tape, as indicated in the following table, which provides the recording time you desire.

TYPE		C-30	C-60	C-90
Recording time	One side	15 min.	30 min.	45 min.
	Both sides	30 min.	60 min.	90 min.

We recommend not to use C-120 cassette tape. C-120 tape is thinner, consequently a greater danger exists of problems arising from loose or curled tape and variations in tension.

If a tape is played several times continuously, especially if thin a tape (C-90 or C-120) is used, the tape might be wound too tightly on the reel which may cause the tape speed to fluctuate. In order to avoid this, it is recommended to tap the cassette several times lightly on the table-top which will loosen the tape on the reel. However, the tape should not be too loose. Especially after fast forwarding or rewinding a C-90 or C-120 cassette, the slack should be taken up by inserting a pencil or ball-point pen in the spindle hole and tightening the tape.

### PROTECTION AGAINST ACCIDENTAL ERASURE

If the tabs on the rear of the cassette are punched out (by a screwdriver or similar tool) the recordings can be protected against accidental erasure.

If side "A" of the cassette is to be protected, punch out tab "A". When both sides are to be protected, punch out both tabs. (See diagram ③1.)

## MAINTENANCE

In order to keep this unit in its optimum operating condition, clean the heads, capstan and pressure roller periodically with a cleaning stick moistened with alcohol or methylated spirits. These are easily accessible if the cassette lid is opened (depress the Eject button ⑪) with the Playback button ⑨ depressed. Never use sharp or metallic instruments or tools for cleaning these parts. (See diagram ③2).

The easiest cleaning can be performed by using a Hitachi head cleaning cassette tape.

Hitachi Ultra-Dynamic Cassette are provided with a piece of head cleaning tape on both ends of the tape; therefore, all accumulated dirt and oxide particles are removed automatically at the beginning and end of the tape.

## CHECK THE FOLLOWING BEFORE CALLING FOR SERVICE

### *Before you jump to the conclusion that it's out of order!*

When the unit is not operating properly, one is apt to assume that the unit is faulty. However, there are many possible faults which are not directly attributable to the unit itself. It is recommended to check the following before taking the unit to a Hitachi dealer.

Symptom	Cause
No power	<ul style="list-style-type: none"> <li>Is the power cord connected properly?</li> </ul>
No battery operation. No sound from the radio. Tape does not run when a button is depressed.	<ul style="list-style-type: none"> <li>Is the power cord connected to the unit? If so, disconnect it.</li> <li>Are the batteries properly inserted in the battery compartment?</li> <li>Are the batteries exhausted?</li> </ul>
No car battery operation.	<ul style="list-style-type: none"> <li>Is the power cord connected to the unit? If so, disconnect it.</li> </ul>
RECORD button cannot be depressed.	<ul style="list-style-type: none"> <li>Is a cassette inserted in the unit?</li> <li>Are the cassette tabs for accidental erasure prevention punched out? If so, cover the holes with plastic tape.</li> </ul>
RECORD button cannot be depressed and rattling noise is heard.	<ul style="list-style-type: none"> <li>Is a cassette fully wound on left reel? If so, try again after depressing the REWIND button.</li> </ul>
Cassette cannot be inserted.	<ul style="list-style-type: none"> <li>Is a button depressed? If so, unlock and release.</li> <li>Is the direction of the cassette reversed?</li> </ul>
No playback	<ul style="list-style-type: none"> <li>Is the PAUSE button depressed? If so, unlock and release.</li> </ul>
No recording	<ul style="list-style-type: none"> <li>Is the PAUSE button depressed? If so, unlock and release.</li> <li>Are the cassette tabs for accidental erasure prevention punched out?</li> </ul>
Deteriorated sound or irregular tape speed. Slow tape speed or low volume.	<ul style="list-style-type: none"> <li>Clean the heads, capstan and pressure roller with a cleaning stick.</li> <li>Are the batteries exhausted?</li> </ul>

## SPECIFICATIONS

### GENERAL SPECIFICATIONS

Semiconductors:	IC: 8 Transistors: 11 Diodes: 11 LED: 2
Power Supply:	AC: 100 to 110V, 115 to 127V, 200 to 220V or 230 to 250V, 50/60 Hz DC: 9V (IEC R20 x 6 or equivalent) Car: Use car battery adaptor
Power (Mains) Consumption:	15W
Speaker:	10 cm, 3.2 ohms x 2
Output:	2 .0W/CH
Dimensions:	25.0(H) x 42.8(W) x 12.8(D) cm
Weight:	4 kg (with batteries)

### RADIO SECTION:

Circuit System:	FM/SW1/SW2/MW 4-band superheterodyne
Tuning Range:	FM: 88 to 108 MHz SW1: 2.3 to 7.3 MHz SW2: 7.0 to 22 MHz MW: 530 to 1605 kHz
Antenna (Aerial):	FM/SW2: Telescopic antenna (aerial) MW/SW1: Built-in ferrite-core antenna (aerial) (aerial)

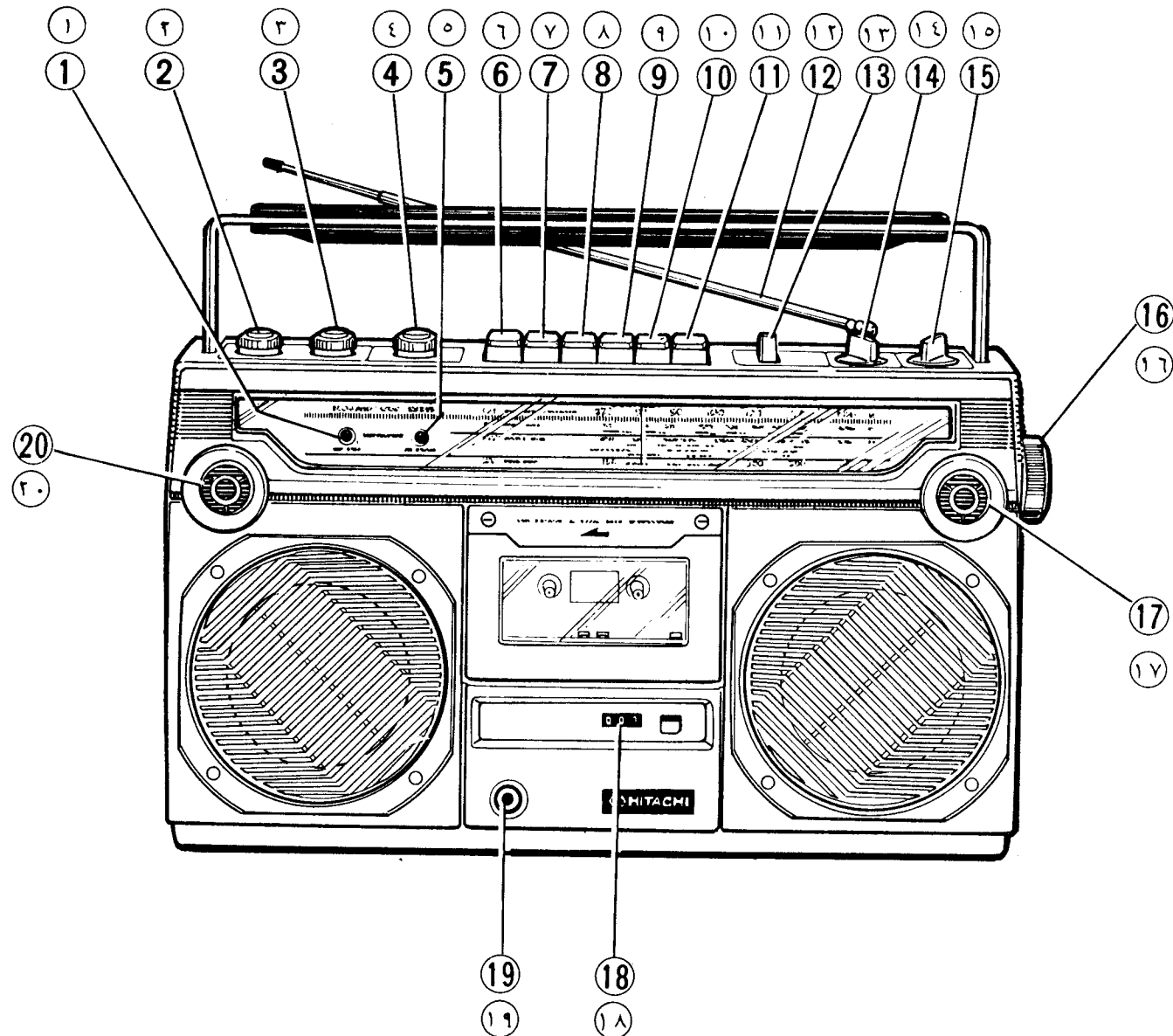
### TAPE RECORDER SECTION

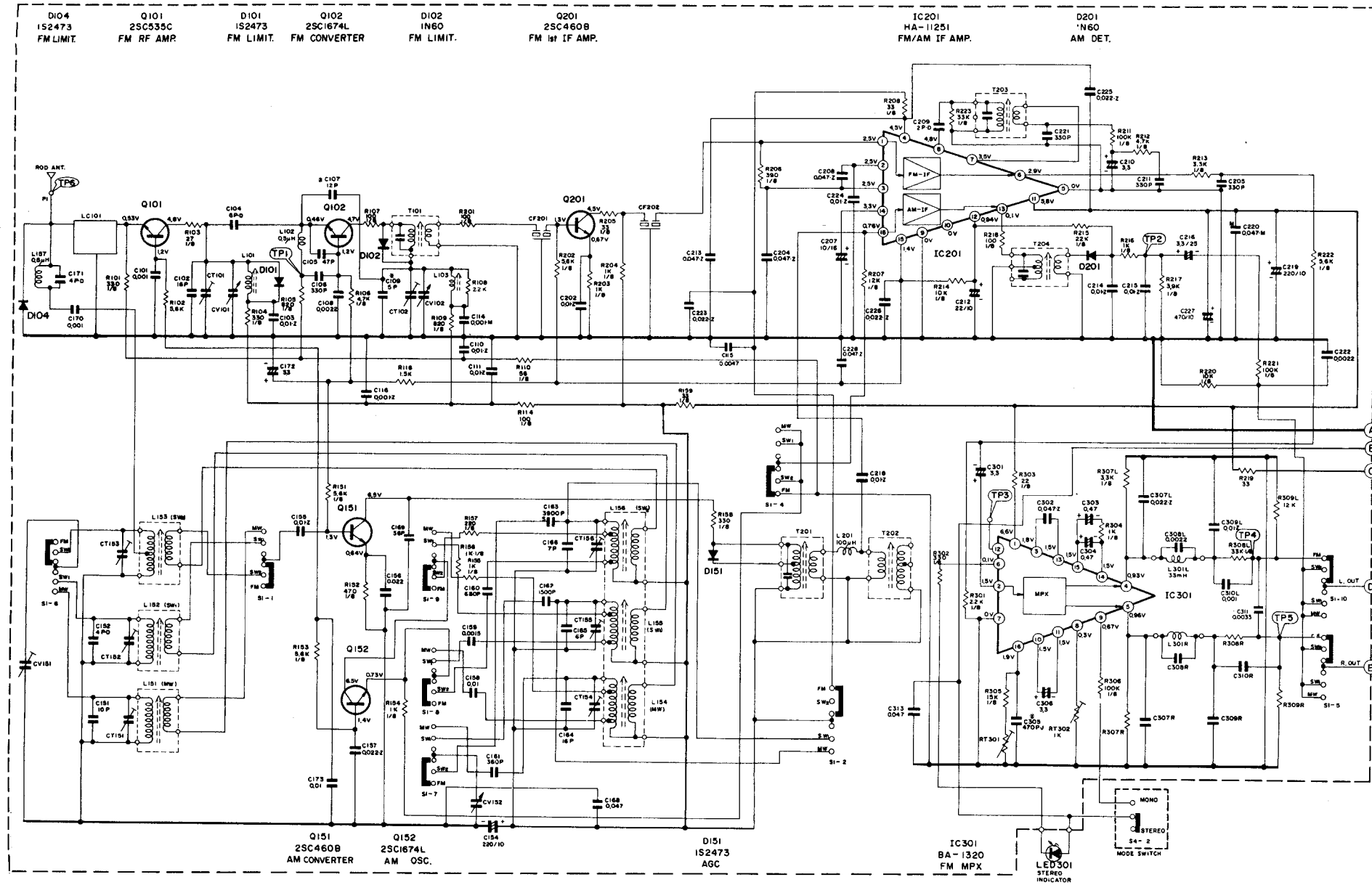
Tape:	Cassette tape (C-30, 60, 90)
Tape Speed:	4.75 cm/s
Recording System and Bias	
Frequency:	AC Bias, 27 kHz
Erasing System:	Quasi AC erase
Playback Frequency Response:	Normal: 50 to 10,000 Hz
Input Sensitivity and Impedance:	Microphone: -55 dB, 500 ohms LINE-IN: 100 mV, 50 kohms
Output level and Impedance:	LINE-OUT: 650 mV, 6 kohms Headphone socket: 60 ohms Ext. speaker socket: 3.2 ohms
Motor:	DC micromotor
Fast Forwarding or Rewinding Time:	120 seconds (using C-60)

Specifications and Schematic diagram are subject to change without notice for performance improvement.



# TRK-8001W





# SCHMATIC DIAGRAM (Tape Recorder/AF/Power Section)

